AirMSPI Level 1B2 V005 New Data for NASA's SEAC^{4}RS Campaign

AirMSPI Data and Information

SEAC^{4}RS
Monday, February 5, 2018

The NASA Langley Atmospheric Sciences Data Center (ASDC) and Jet Propulsion Laboratory (JPL) announce the public release of Version 005 of the Airborne Multiangle SpectroPolarimetric Imager (AirMSPI) Level 1B2 data products for the Studies of Emissions and Atmospheric Composition, Clouds and Climate Coupling by Regional Surveys (SEAC^{4}RS) flight campaign.

AirMSPI flies in the nose of NASA's high-altitude ER-2 aircraft. The instrument was built by JPL and the University of Arizona under NASA's Instrument Incubator and Airborne Instrument Technology Transition Programs, and is aimed primarily at remote sensing of the amounts and microphysical properties of aerosols and clouds.

AirMSPI Level 1B2 products contain radiometric and polarimetric images of clouds, aerosols, and the surface of the Earth. In particular, products contain map-projected data at 8 wavelengths: 355, 380, 445, 470, 555, 660, 865, and 935 nm. The data products include radiance, time, solar zenith, solar azimuth, view zenith, and view azimuth for all spectral bands. Wavelengths for which polarization information is available (470, 660, and 865 nm) also include the Stokes parameters Q and U, as well as degree of linear polarization (DOLP) and angle of linear polarization (AOLP). Q, U, and AOLP are reported relative to both the scattering- and view meridian planes. Files are distributed in HDF-EOS-5 format.

This release of AirMSPI data contains all targets acquired during the Studies of Emissions and Atmospheric Composition, Clouds and Climate Coupling by Regional Surveys (SEAC^{4}RS) flight campaign. SEAC^{4}RS was primarily based out of Ellington Field in Houston, Texas (initial flights were based out of Armstrong Flight Research Center in Palmdale, CA), and focused on clouds and aerosols in the United States. AirMSPI data were acquired from August 1 through September 23, 2013.

Information about these products, details about product quality, and mechanisms to access the data can be found under AirMSPI Data and Information at the ASDC website. Please check back often as new products are continuing to be added and made available for ordering.